

Further New Species and Varieties of Asiatic Rhododendrons.

BY

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With Plate CCXXXI.

The species and varieties of Elepidote Rhododendrons enumerated below have already appeared with a brief English description in the recently published "Species of Rhododendron."* Opportunity is now taken to publish them with a Latin diagnosis and also with a fuller account of localities and collector's notes. The species and varieties dealt with are the following :—

- Rhododendron Bainbridgeanum, Tagg et Forrest, p. 186.
" cerasinum, Tagg p. 188.
" chaetomallum, Balf. f. et Forrest, var. glaucescens,
Tagg et Forrest, p. 189.
" chaetomallum, Balf. f. et Forrest, var. hemigymnum,
Tagg et Forrest, p. 189.
" crinigerum, Franch., var. euadenium, Tagg et Forrest,
p. 190.
" dumicola, Tagg et Forrest, p. 190.
" euryisiphon, Tagg et Forrest, p. 191.
" exasperatum, Tagg, p. 192.
" glischroides, Tagg et Forrest, p. 194.
" glischroides, Tagg et Forrest, var. arachnoideum, Tagg
et Forrest, p. 196.
" Hardingii, G. Forrest, p. 196.
" hirtipes, Tagg, p. 197.
" lanigerum, Tagg, p. 199.
" Makinoi, Tagg, p. 200.
" Meddianum, G. Forrest, var. atrokermesinum, G.
Forrest, p. 202.
" peregrinum, Tagg, p. 202.
" platypodum, Diels, descript. ampl. Tagg, p. 204.

* The Species of Rhododendron (1930), published by the Rhododendron Society.

Rhododendron repens, Balf. f. et Forrest, var. *chamaedoron*, Tagg et Forrest, p. 206.

„ *repens*, Balf. f. et Forrest, var. *chamaethauma*, Tagg, p. 206.

„ *repens*, Balf. f. et Forrest, var. *chamae-Thomsonii*, Tagg et Forrest, p. 206.

„ *rude*, Tagg et Forrest, p. 207.

„ *sanguineum*, Franch., var. *didymoides*, Tagg et Forrest, p. 208.

„ *vellereum*, Hutch. p. 209.

„ *vesiculiferum*, Tagg, p. 208.

„ *vestitum*, Tagg et Forrest, p. 210.

Rh. Bainbridgeanum,* Tagg et Forrest. Sp. nov.

The Species of *Rhododendron* (1930), 133.

Species affinis *Rh. criniger*, Franch., a quo foliorum forma atque magnitudine, indumento coloris diversi tenuiore differt.

Frutex 1-2 m. altus; ramuli glandulis setosis numerosis atque pilis floccosis paucis muniti, sub inflorescentiis circ. 6 mm. diametro; perulae diu plus minusve persistentes. Folia petiolo 1-1.5 cm. longo supra sulcato dense setoso-glanduloso atque sparsim floccoso praedita; lamina oblongo-lanceolata vel oblongo-oblancoolata vel subelliptica, 6-12 cm. longa, 2-4.5 cm. lata, apice obtusa, basi obtusa vel rotundata vel nunc truncata, margine paululo revoluta, supra minute rugulosa, maturitate glabra vel indumenti juvenilis floccosi vestigiis (praesertim ad costam sulcatam) conspersa, venis primariis utrinque 12-14 impressis, infra indumento tenui laxo olivaceo vel fulvo plus minusve detersili induta, costa prominente plus minusve floccosa atque sparsim glandulosa, venis primariis subobscuris. Inflorescentia racemoso-umbellata, 6-8-flora; rhachis circ. 5 mm. longa, floccosa; pedicelli circ. 2.5 cm. longi, graciles, glandulis aliis longistipitatis aliis brevistipitatis dense muniti. Calyx magnitudine variabilis, 4-9 mm. longus fere ad basim in lobos 5 anguste triangulares dorso atque margine setoso-glandulosos fissus. Corolla campanulata, circ. 3.5 cm. longa, alba vel lacteo-flava nunc roseo-suffusa, varo basali kermesino notata, latere posteriore plus minusve maculata; lobi 5 circ. 1 cm. longi, 1.5 cm. lati, leviter emarginati. Stamina 10, inaequalia, 2-3 cm. longa, filamentis basi puberulis. Gynaecium circ. 3 cm. longum; ovarium conoideum circ. 4 mm. longum, glandulis longistipitatis ascendentibus dense obsitum, stylo basi plus minusve glanduloso. Capsula cylindrica, paululo curvata, nigrescens, circ. 2 cm. longa, 4 mm. lata, 5-7 locularis, glandulis emarcidis plus minusve asperata.

“S.E. TIBET. Tsarong: Salween—Kiu chiang divide, West of Chamatong. Lat. 28° 18' N. Long. 98° 27' E. Alt. 12-13,000 ft.

* The specific name is in honour of Major Bainbridge, at one time Commandant of the Military Police at Htawgaw, who within the area under his jurisdiction gave Mr. Forrest valuable assistance in the collection of specimens.

Flowers creamy-yellow with a few faint markings of crimson and a faint blotch of crimson at base. Shrub of 4 ft. In open thickets and on margins of conifer forests. June, 1922." G. Forrest No. 21761.

"S.E. Tibet. Tsarong: Salween—Kiu Chiang divide, West of Chamatong. Lat. $28^{\circ} 18'$ N. Long. $98^{\circ} 27'$ E. Alt. 11–12,000 ft. Flowers white faintly flushed rose especially around margins with crimson markings merging in a blotch at base. Shrub of 4 ft. In mixed scrub in side valleys. June, 1922." G. Forrest No. 21894.

"S.E. Tibet. Tsarong: Duplicate of No. 21894 in fruit. October, 1922." G. Forrest No. 22716.

"S.E. Tibet. Tsarong: Duplicate of No. 21761 in fruit. October, 1922." G. Forrest No. 22721.

This is closely akin in its flower characters to *Rh. crinigerum*, with which species it agrees also in the setose glandular shoots and petioles and in the tendency of the perulae to persist for several years although the latter feature does not appear to be so constant in the present species as in *Rh. crinigerum*. It differs markedly from *Rh. crinigerum* in its foliage, the leaves being much broader for their length and much less pointed, while the indumentum of the under surface is thinner and looser and easily rubbed off. The leaf upper surface is less rugulose than in *Rh. crinigerum* and the petioles are longer. The gland-setulose shoots and petioles suggest a relationship with certain aberrant members of the Selense alliance such as *Rh. setiferum* and *Rh. manopeplum*.

In addition to the numbers quoted above there are other gatherings of the species which vary somewhat in the shape and size of leaf, in the size of the calyx and in the length of the setulose glands of pedicel, calyx and ovary. The more outstanding variants, all from the same locality as the types quoted above, are the following:—

A form with less pointed leaves and with long narrow strap-shaped calyx lobes; leaf indumentum relatively thin. G. Forrest Nos. 21697 (= 22901), 21893 (= 22729), 21821 (= 22713).

A form with white flowers, faintly flushed rose without markings. G. Forrest No. 21762 (= 22714).

A form with relatively short calyx lobes, corolla copiously spotted; leaf indumentum denser than in the typical form. G. Forrest No. 21829 (= 22720).

A form with narrow oblanceolate leaves with somewhat acuminate points, with the leaf indumentum greyish or olive. Flowers white with crimson markings. G. Forrest No. 21834 (= 22717).

A form with flowers white without markings. G. Forrest Nos. 21833 (= 22715), 21766 (= 22718).

The numbers in brackets refer to fruiting specimens, correlated with the corresponding specimens in flower.

Rh. cerasinum, Tagg. Sp. nov.

The Species of *Rhododendron* (1930), 737; Ward in Gard. Chron., 3rd ser., lxxxvii. (1930), 330.

Species affinis *Rh. Stewartiano*, Diels sed ab omnibus speciebus subsectionis *Thomsonii* stylo ad apicem crebre glanduloso differt.

Frutex robustus ad 4 m. altus; ramuli sub inflorescentia circ. 3 mm. diametro, maturitate glabri. Folia petiolo circ. 1 cm. longo, plus minusve glanduloso, tandem glabrescente suffulta; lamina oblonga vel oblongo-elliptica, circ. 6.5 cm. longa, circ. 2.3 cm. lata, apice obtusa, basi obtusa vel subrotundata, supra minute rugulosa, tandem glabra, vestigiis pilorum ad costam exceptis, venis primariis utrinque 14-16 paulo impressis, infra subglauca, glabra, costa eminente sparse glandulosa, venis obscuris. Inflorescentia umbellata, 6-7-flora; flores pendentes; rhachis circ. 5 mm. longa; pedicelli circ. 2 cm. longi, glandulis ovoideis subsessilibus dense induti. Calyx paulo carnosus, 3-5 mm. longus, dorso dense glandulosus, margine lobis nunc obscuris nunc rotundatis vel ovatis undulatus atque glanduloso-ciliatus. Corolla tubuloso-campanulatus, 3.5-4.5 cm. longa, cerasino-rubra, apice roseo-suffusa, intus nectariis atropurpureis quinque conspicue notata; lobi 5, 1.5 cm. longi, 2 cm. lati, margine undulati. Stamina 10, subaequalia, 2.7-3.3 cm. longa, filamentis glabris, antheris rubro-brunneis. Gynaeceum 3.5 cm. longum; ovarium conoideum, truncatum, 8 mm. longum, 4 mm. latum, glandulis subsessilibus dense praeditum; stylus robustus ad apicem glandulis sessilibus munitus; stigma lobulatum, 2 mm. latum.

"NORTH BURMA. Seinghku Wang. Lat. 28° 8' N. Long. 97° 24' E. Altitude 11,000 ft. A stout thickset bush as much as 10 or 12 feet high, growing on the sheltered side of the valley in the dense *Rhododendron* thickets, or on the edge of the bands of *Abies* forest (not inside), and just coming into flower. Flowers of a very unusual colour or combination of colours. The buds are carmine. The main part of the corolla is white, but round the open end is a broad border of deep pink, and at the base 5 pitlike glands of deepest purple. Pedicel and small flat angular calyx beset with glandular hairs; ovary and style likewise anthers reddish brown. There is a form with cherry red flowers without any white. A bush grows in a thicket close to camp. Compare also No. 5830 from Tibet, which has the same long curved pedicel, hanging down, so that the fruits do not stand erect. June, 1926. K. Ward No. 6923."

The field ticket of Ward's 5830 runs:—"Doshong La. Altitude 10,000-12,000 ft. A shrub of 6-10 ft. forming dense tangled thickets by the stream. Flowers fleshy, brilliant scarlet, with 5 coal-black glands at the base. The first red-flowered species met with and a most striking one. Just breaking. June, 1924. K. Ward No. 5830."

In spite of the difference in flower colour this is certainly closely akin to Ward's 6923. Structurally the flowers are identical and the foliage is the same in all essential features.

A gathering by Ward from Assam should be included here as a geographical form with deep crimson flowers. Ward's field ticket runs "Delei Valley, 11-12,000 ft. alt. *Rhododendron* sp. Flowers deep crimson with 5 circular coal black glands at the base. (Thus resembling a very similar species collected in Tibet in 1924, named 'Coals of Fire.') Just beginning to open. A large shrub with ascending trunk sweeping up from the ground to a height of 10 ft. Forms thickets, which are practically impenetrable, in sheltered dips and hollows of the ridge. The curved pedicels also recall the Tibetan plant. 30/5/28. 10/6/28. Further in flower. The corolla is rather fleshy, and by reflected light has a rather bluish tint, but by transmitted light is blood red. Grows either as a moderate sized shrub in the forest or as scrub along the ridge with *Sanguineum* species and the plum-coloured *Campylogynum*." Ward No. 8258.

In the field notes published by Mr. Lionel de Rothschild, Ward says, "A bush with ascending trunk and loose umbels of bright crimson-scarlet flowers with coal black glands at the base. Grows socially in the upper *Abies* forest, along the ridge, at 12,000 ft. 30/5/28. Like No. 5830 (1924)."

The gathering referred to by Ward as "Coals of Fire" in the above field note is K. Ward, No. 5830.

Rh. chaetomallum, Balf. f. et Forrest, var. ***glaucescens***, Tagg et Forrest. Var. nov.

The Species of *Rhododendron* (1930), 520.

Foliis supra glaucescentibus in modum foliorum *Rh. Thomsoni* a typo divergit.

"N.E. UPPER BURMA. Western flank of the Salween—Kiu-chiang divide. Lat. 27° 18' N. Long. 98° 40' E. Alt. 13,000 ft. On rocky slopes in side valleys. Shrub of 5 ft. Flowers deep rich crimson. July, 1924." G. Forrest No. 25607.

Rh. chaetomallum, Balf. f. et Forrest, var. ***hemigynnum***, Tagg et Forrest. Var. nov.

The Species of *Rhododendron* (1930), 520.

Varietas haec conspicua foliis subtus glabrescentibus, indumento saepe tenui atque deteribili a typo divergit; flores majores quam ei plantae typicae, calyce magno muniti; aspectus plantae hujus sectionem *Thomsoni* suggerit et affinitas cum ea sectione haud dubia est sed ovarium est dense tomentosum id quod in sectione *Thomsoni* non invenitur.

"S.E. TIBET. Tsarong: Salween—Kiu chiang divide, N.W. of Si-chi-to. Lat. $28^{\circ} 45'$ N. Long. $98^{\circ} 18'$ E. Alt. 12,000 ft. In mixed scrub in corries. Shrub of 6 ft. Flowers rich bright red crimson. June, 1922." G. Forrest No. 21728.

"N.E. UPPER BURMA. Western flank of the Salween—Kiu chiang divide. Lat. $27^{\circ} 18'$ N. Long. $98^{\circ} 40'$ E. Alt. 14,000 ft. In alpine scrub. Shrub of 4 ft. Flowers very dark crimson. July, 1924." G. Forrest No. 25605.

"N.E. Upper Burma. Duplicate of No. 25605. Oct., 1924." G. Forrest No. 25845.

Rh. crinigerum, Franch., var. **euadenium**, Tagg et Forrest. Var. nov.

The Species of *Rhododendron* (1930), 134.

A typo indumento multo tenuiore glandulis clavatis numerosis intermixtis varietas haec recedit.

"N.W. YUNNAN. Salween—Kiu chiang divide. Lat. $27^{\circ} 5'$ N. Long. $98^{\circ} 35'$ E. Alt. 11–12,000 ft. Flowers white flushed rose with a few dark crimson markings merging in a crimson blotch at base. Shrub of 5–6 ft. In scattered pine forests on terraced cliffs. July, 1924." G. Forrest No. 25619.

"N.W. Yunnan. Salween—Kiu chiang divide. Lat. $27^{\circ} 5'$ N. Long. $98^{\circ} 35'$ E. Alt. 12,000 ft. Flowers white with a few crimson markings merging in a blotch at base. Shrub of 6–7 ft. On cliffs and rocky slopes in side valleys. July, 1924." G. Forrest No. 25633.

"N.W. Yunnan = F. No. 25619. Same locality and altitude. October, 1924." G. Forrest No. 25794.

In the variety the indumentum is so reduced that the epidermal surface is not entirely concealed. On the other hand the glandular development is much greater than in the typical plant. The interest of this variety lies in the fact that it occupies an intermediate position between *Rh. crinigerum*, Franch. and *Rh. glischrum*, Balf. f. et Forrest. This is a confirmation of the view that *Rh. crinigerum* is correctly placed in association with the *Barbatum* series as originally indicated by Franchet rather than with the *Adenogynum* subseries of the *Taliense* series as the thick indumentum of the typical plant might suggest.

Rh. dumicola, Tagg et Forrest. Sp. nov.

The Species of *Rhododendron* (1930), 643.

Species haec yunnanensis est affinis *Rh. Faberi*, Hemsl., plantae szechuanicae, a qua ramulis glandulosis nec villosis inter alia differt; etiam ad *Rh. mimetes*, Tagg et Forrest appropinquat sed calyce multo majore praeter alia signa distinguitur.

Frutex 1 m. paulo excedens; ramuli petiolique glandulis sessilibus induti. Folia petiolo 1.5 cm. longo primum floccoso atque glanduloso tandem glabrescente munita; lamina oblongo-elliptica, circ. 7 cm. longa, 3 cm. lata, apice obtusa sed distincte mucronulata, basi plus minusve rotundata, supra paulo rugulosa, costa impressa, venis primariis utrinque 14 paulo impressis, infra indumento crassiusculo fulvo induta, costa prominula floccosa atque glandulosa. Inflorescentia umbellata, 5-7-flora; rhachis brevis tantum 2-3 mm. longa; pedicelli 1.5-2 cm. longi glandulis brevistipitatis conspersi. Calyx magnus subfoliaceus, fere ad basim in lobos 5 inaequales ovatos vel rotundatos (maiores ad 8 mm. longos 5 mm. latos, minores circ. 4 mm. longos et latos), dorso sparsim glandulosos margine glandulosociliatos fissus. Corolla campanulata, alba, roseo-suffusa, basi leviter kermesino-maculata, 3.5 cm. longa; lobi 5, rotundati, 1-1.5 cm. longi, 1.5-2 cm. lati. Stamina 10, inaequalia, 1.5-2.5 cm. longa, filamentis basi puberulis. Gynaeceum 3.5 cm. longum; ovarium conoideum, glandulis brevistipitatis dense obsitum, stylo glabro. Fructus maturus deest.

"N.W. YUNNAN. Mekong—Salween divide. Lat. 27° N. Long. 99° 2' E. Alt. 14,000 ft. On rocky slopes and in alpine thickets. Flowers white flushed rose and with a faint blotch of crimson on interior base. Shrub of 3-4 ft. July, 1924." G. Forrest No. 25580.

This species finds its nearest ally in the Szechuan *Rh. Faberi*. It is a much more glandular species and is distinguished from *Rh. Faberi* by its very glandular young shoots and petioles which are not woolly as in *Rh. Faberi*. From *Rh. mimes* a species found in S.W. Szechuan around Muli, with which it is also related, it is distinguished by the much larger calyx as well as by the glandular shoots and petioles (the latter much shorter than in *Rh. mimes*) and also by the less dense indumentum.

***Rh. euryisiphon*, Tagg et Forrest. Sp. nov.**

The Species of Rhododendron (1930), 708.

Species affinis *Rh. Martiniano*, Balf. f. et Forrest a quo pedicellis brevioribus, corollae maculatae tubo campanulato basi latiore recedit; haud procul a *Rh. Stewartiano*, Diels et quasi-intermedia inter speciem illam et *Rh. Martinianum* apparet.

Frutex vix ad 2 m. pertinens; ramuli sub inflorescentia 2-3 mm. diametro breviter glandulosi, seniores cinerei glabrescentes. Folia petiolo circ. 5 mm. longo supra sulcato plus minusve glanduloso munita; lamina oblongo-elliptica, tenuiter coriacea, 3-5.5 cm. longa, 1.2-2.5 cm. lata, apice rotundata atque apiculata, basi late obtusa vel rotundata, supra maturitate glabra, venis primariis haud conspicuis, infra pallido-glaucia, papillosa atque glandulis minutis punctulata. Inflorescentia umbellata 3-5-flora; rhachis circ. 5 mm. longa tomen-

tosa; pedicelli graciles 1-2 cm. longi, glandulis stipitatis muniti. Calyx breviter cupularis, circ. 4 mm. longus, lobis 5 brevibus rotundatis, dorso glandulosus, margine glanduloso-ciliatus. Corolla late campanulata, lacteo-alba vel pallido-rosea, copiose kermesino-maculata, 3.5-4 cm. longa; lobi 5, 1.5 cm. longi, 2 cm. lati, alte emarginati. Stamina 10, inaequalia, 1.3-3 cm. longa, filamentis basi puberulis. Gynaecium 3.5 cm. longum, ovario ovoideo sulcato 5 mm. longo dense glanduloso, stylo glabro. Capsula oblonga, circ. 1.5 cm. longa, 5 mm. lata, nigrescens, paulo curvata, glandulis emarcidis induta, calyce persistente praedita.

"S.E. TIBET. Tsarong: Salween—Kiu chiang divide, N.W. of Si-chi-to. Lat. 28° 40' N. Long. 98° 18' E. Alt. 13,000 ft. Amongst scrub and in rhododendron thickets on stony slopes in side valleys. Shrub of 3-5 ft. Flowers creamy-white or very pale rose more or less heavily flushed deep magenta-rose with copious crimson markings. June, 1922." G. Forrest No. 21694.

"S.E. Tibet. Tsarong: Duplicate of No. 21694. October, 1922." G. Forrest No. 22938.

Other gatherings not equivalent but closely allied to the type are:—

"S.E. TIBET. Tsarong: Salween—Kiu chiang divide, West of Si-K'ai. Lat. 27° 46' N. Long. 98° 33' E. Alt. 11,000 ft. Open stony slopes amongst rocks in side valleys. Shrub of 3-4 ft. Flowers creamy-white, more or less flushed rose, with faint crimson markings. June, 1922." G. Forrest No. 21708.

"S.E. Tibet. Tsarong: Salween—Kiu chiang divide, West of Si-K'ai. Lat. 27° 46' N. Long. 98° 33' E. Alt. 11,000 ft. In mixed scrub on the margins of thickets. Shrub of 3 ft. Flowers pale rose with crimson markings. June, 1922." G. Forrest No. 21781.

"S.E. Tibet. Tsarong: Salween—Kiu chiang divide, N.W. of Si-chi-to. Lat. 28° 45' N. Long. 98° 18' E. Alt. 11,000 ft. On the margins of mixed thickets. Shrub of 3 ft. Flowers deep rose with a few crimson markings. June, 1922." G. Forrest No. 21787.

"S.E. Tibet. Tsarong. Duplicate in fruit of No. 21708. Same locality and situation. October, 1922." G. Forrest No. 22610.

"S.E. Tibet. Tsarong. Duplicate of No. 21787. October, 1922." G. Forrest No. 22611.

"S.E. Tibet. Tsarong. Duplicate of No. 21781. October, 1922." G. Forrest No. 22619.

***Rh. exasperatum*, Tagg. Sp. nov.**

The Species of *Rhododendron* (1930), 836.

Species affinis *Rh. hirtipedi*, Tagg atque *Rh. glischro*, Balf. f. et W. W. Sm.; a priori foliis majoribus subtus undique setosis differt, ab altero foliis ovalibus perlatis inter alia recedit.

Frutex vel arbor parva, 3-5 m. alta, ramulis sub inflorescentia circ. 1 cm. crassis setis robustis glandulosis dense indutis, perulis magnis subpersistentibus. Folia petiolo brevi 1-1.5 cm. longo dense setoso-glanduloso suffulta; lamina subcoriacea, late ovalis vel subobovata, 16-18 cm. longa, 5-10 cm. lata, apice rotundata breviter mucronata, margine setulis cito deciduis praedita, basi rotundata, supra atrovirens fere laevis, costa sulcata ad basim dense strigosa, venis primariis utrinque 12-15 leviter impressis, subtus pallidior, costa eminente setis magnis praesertim ad basim induta, ceterum setulis glandulosis bene conspersa. Inflorescentia compacta umbellata multiflora, pedicellis circ. 1 cm. longis paulo glandulosis. Calyx 4-5 mm. longus, glaber, ad duas partes in lobos quinque breviter ovatos apice rotundatos fissus. Corolla infundibulari-campanulata, 3.5-4 cm. longa, rubra, lobis 5 subaequalibus rotundatis 1.5 cm. longis 2 cm. latis leviter emarginatis. Stamina 10, inaequalia, 1.5-2.5 cm. longa, filamentis glabris. Gynaeceum circ. 3 cm. longum, ovario late conico 5 mm. longo dense glanduloso-setoso, stylo glabro. Capsula (immatura) dense setulosa, calyce persistente cincta.

"ASSAM. Delei Valley. Lat. 28° N. Alt. 11-12,000 ft. Flower, practically over, in colour a ruddy brick-red but with some orange in it. A stout bush. Growing on the open ridge and on its flanks, in dense thickets of mixed rhododendron in the lower Abies forest. May, 1928." K. Ward No. 8250.

"S.E. TIBET. Pemakochung, Tsangpo Gorge. Alt. 10,000 ft. Shrub of 10-15 ft. Growing in dense rhododendron thickets on very steep cliffs on the sheltered side of the glen. November, 1924." K. Ward No. 6302.

"NORTH BURMA. Advance Base, Seinghku Wang. Lat. 28° 8' N. Long. 97° 25' E. Alt. 10-11,000 ft. A small gnarled tree, often with horizontal-ascending trunk. Growing on the steep rocky sheltered slopes which are clothed with tanglewood without any big trees. June, 1926." K. Ward No. 6855.

This discovery by Captain Kingdon Ward in the Delei Valley in Assam gives an interesting link between the *Barbatums* of the Himalayas and the Burmese and Yunnanese members of the Series such as *Rh. glischrum* and *Rh. habrotrichum*. The outstanding features of *Rh. exasperatum* are the large oval leaves and the bristly shoots and petioles. In its coarse bristles it recalls typical *Rh. barbatum* but differs markedly in the leaf shape and in the setose glandular under-surface. In its leaf shape it approaches *Rh. hirtipes* but differs from that species in its larger leaves, more compact inflorescence, deeper coloured flowers, smaller calyx, glabrous filaments and different leaf indumentum. The glandular bristles of shoots and foliage constitute an affinity with *Rh. glischrum*, which, however, has elongate oblanceolate leaves with acuminate apices. From *Rh. habrotrichum* and *Rh. diphrocalyx*, which have glandular bristles on shoots and petioles and

relatively broad leaves, *Rh. exasperatum* differs in its setulose glandular leaf under-surface as also in the compact flower truss. Another bristly species which invites comparison with *Rh. exasperatum* is *Rh. rude*. This is readily distinguished by its leaf shape, by the bristly upper surface of the leaves and by the very bristly pedicels and relatively large and gland-setose calyx. *Rh. diphrocalyx* with eglandular pedicels has a very long one-sided and coloured calyx.

The scattered setae of the leaf under-surface in *Rh. exasperatum* vary in size. Many of the longer setae are without gland tips. They may be eglandular setose hairs or long setose glands which have lost the gland tip. The upper surface of the mature leaf is glabrous but it is probable that as in *Rh. glischrum* the young foliage is more or less floccose and glandular on the upper side. The large bud-scales persistent for several years are a characteristic feature of the species. Of these in No. 6855 Ward says "the bright red foliage bud-scales are now (June) a feature."

Captain Kingdon Ward commenting on No. 8250 says on the field ticket "this recalls a large-leaved *Barbatum* collected in the Tsangpo Gorge, Tibet, in 1924, and another collected in the Seinghku Valley, Burma, in 1926. Neither of these were in flower and both of them had larger leaves than any specimens of No. 8250 yet seen." The collections referred to are doubtless the numbers given above, viz., Ward 6302 and Ward 6855 respectively. In spite of the variation in size of leaf there is no doubt that these two gatherings without flower are referable to the Delei Valley species. Of the flower of No. 8250 Ward says "in colour a ruddy brick-red but with some orange in it. Calyx and pedicel red, filaments glabrous reddened towards the base, the anthers dark chocolate. Ovary covered with colourless glandular hairs."

***Rh. glischroides*, Tagg et Forrest. Sp. nov.**

The Species of *Rhododendron* (1930), 137.

Species haec est valde affinis *Rh. glischro*, Balf. f. et Forrest, sed indumento diverso praeter alia signa minora distinguitur.

Frutex 2-5 m. altus; ramuli annotini longe glanduloso-setosi; perulae diu persistentes. Folia petiolo 1-2 cm. longo densissime glanduloso-hirsuto suffulta; lamina subcoriacea, oblongo-lanceolata vel oblanceolata, 7-15 cm. longa, 2.5-4.5 cm. lata, apice acuminata, basi anguste rotundata vel subcordulata, margine setulis asperata, supra glabra nisi ad costam sulcatam glanduloso-setosulam rugosula haud nitens, infra undique longe setosa, venis costaque insuper indumento albido e pilis floccosis brevibus crispatis composito indutis, costa ipsa prominente; nervi primarii utrinque 18-24 subconspicui. Inflor-
escentia umbellata 7-10-flora; rhachis circ. 1 cm. longa, tomentosa; pedicelli circ. 2 cm. longi, setis glandulosis et longis et brevibus dense

praediti. Calyx circ. 1–2 cm. longus, in lobos subaequales lanceolatos vel anguste oblongos fere ad basin fissus, undique dense glanduloso-setosus. Corolla subcampanulata, tenuiter carnosae, alba vel roseo-suffusa, basi kermesino-maculata, 4 cm. longa, lobis 5, emarginatis 2 cm. longis, 2.5 cm. latis. Stamina 10, inaequalia, 2–4 cm. longa, filamentis basi dilatatis ibique dense villosis. Gynaeceum 4 cm. longum; ovarium ovoideum, 5 mm. longum, setis glandulosis ascendentibus dense obsitum; stylus glaber. Capsula oblonga, vix curvata 1.5 cm. longa, 6 mm. lata, calyce persistente fere inclusa, 6 locularis.

"N.E. UPPER BURMA. Western flank of the N'Maikha—Salween divide, near Pan-ti ho. Lat. 26° 20' N. Long. 98° 48' E. Alt. 10–11,000 ft. Flowers white more or less deeply flushed rose. A shrub of 15 ft. In thickets in side valleys. April, 1925." G. Forrest No. 26426.

"N.E. Upper Burma. Western flank of the N'Maikha—Salween divide, near Pan-ti ho. Lat. 26° 20' N. Long. 98° 48' E. Alt. 11,000 ft. Flowers white flushed rose deepest at base and with a crimson blotch. Shrub 6 ft. On rocky slopes and on ledges of cliffs in side valleys. April, 1925." G. Forrest No. 26428.

"N.E. Upper Burma. Western flank of the N'Maikha—Salween divide, near Pan-ti ho. Lat. 26° 20' N. Long. 98° 48' E. Alt. 10,000 ft. Flowers pale rose or white washed rose. Shrub of 15 ft. In thickets in side valleys. April, 1925." G. Forrest No. 26448.

"N.E. Upper Burma. Western flank of the N'Maikha—Salween divide. Lat. 26° 20' N. Long. 98° 48' E. Alt. 10,000 ft. Flowers creamy-white stained and flushed rose more or less darkly. Shrub of 10 ft. In thickets on bouldery slopes. April, 1925." G. Forrest No. 26455.

"N.E. Upper Burma. Duplicate in fruit of No. 26455. October, 1925." G. Forrest No. 27463.

"N.E. Upper Burma. Duplicate in fruit of No. 26426. October, 1925." G. Forrest No. 27470.

"N.E. Upper Burma. Duplicate in fruit of No. 26428. November, 1925." G. Forrest No. 27609.

"N.E. Upper Burma. Duplicate in fruit of No. 26448. October, 1925." G. Forrest No. 27625.

This species is closely akin to *Rh. glischrum*, Balf. f. et W. W. Sm., from which it differs in its more rugose leaves with broader base, in its indumental characters, in its lighter coloured flowers and in its glabrous style. The indumental features are interesting: as in *Rh. glischrum* the leaf under-surface is clad all over with long crisped decurved setae, in addition there are found on the veins of this species a white floccose covering of much shorter flaccid soft branched hairs. This floccose or semi-woolly type of indumentum becomes more marked in the variety described below. It is probable that all the long crisp setae that give the marked hispidity to the leaf under-surface

are at first tipped with glands although on mature leaves of dry specimens the gland-tips are commonly wanting. Like *Rh. glischrum* the species is conspicuous for the coarse gland-tipped bristles of the young shoots and petioles.

Rh. glischroides, Tagg et Forrest, var. **arachnoideum**, Tagg et Forrest. Var. nov.

A typo indumento diverso recedit; pagina inferior foliorum indumento arachnoideo tenui induta est, setis glanduliferis raris atque inconspicuis.

"N.E. UPPER BURMA. Western flank of the N'Maikha—Salween divide near Pan-ti ho. Lat. 26° 20' N. Long. 98° 48' E. Alt. 10,000 ft. Flowers probably rose or crimson. Shrub of 4 ft. On rocky slopes amongst scrub. April, 1925." G. Forrest No. 26425.

"N.E. Upper Burma. Duplicate in fruit of No. 26425. November, 1925." G. Forrest No. 27600.

In this variety the soft white floccose hairs which in the type are confined to the more prominent veins become dominant and give a thinly woolly or cobwebby indumentum on the leaf undersurface. Correlated with this free development of branched hairs is a reduction in the hispidity of the leaf under-surface. The long stiff setae profusely developed on the leaf under-surface in the typical form are here replaced by fewer and shorter stalked glands.

The flowers of Forrest No. 26425 are imperfect. Forrest gathered seed of this (No. 27600 in fruit), and it may be that in cultivation the variety will turn out to be more distinct than is suggested by a varietal name.

Rh. Hardingii,* G. Forrest. Sp. nov. Descript. Tagg.

The Species of *Rhododendron* (1930), 344.

Species valde affinis *Rh. laxifloro*, Balf. f. et Forrest a quo foliis angustioribus, pedicellis longioribus, inflorescentia magis aperta recedit; flores similes eis speciei citatae. Haud procul est *Rh. Annae*, Franch. quod floribus similibus sed multo minoribus gaudet.

Frutex gracilis fere ad 3 m. altus, ramulis primo glandulosis et sparsim floccosis. Folia petiolo primum glanduloso, deinde glabrescente circ. 1 cm. longo suffulta; lamina 6-8.5 cm. longa, 1.5-2.5 cm. lata, lanceolata, apice acuta, basi cuneata, margine paulo undulata atque glandularum delapsarum vestigiis asperata, utrinque juvenilis glandulosa atque floccosa, matura omnino glabra, infra pallidior, punctulata, costa valde sulcata, venis primariis utrinque 12-14 impressis. Inflorescentia laxa corymbosa, 8-12-flora; rhachis 3-3.5 cm. longa glabra vel paululo glandulosa; pedicelli 3-4 cm.

* This species is named after H. I. Harding, H.M. Consul at Tengyueh (1923-25), to whom Mr. Forrest is indebted for the material of the flowering specimen constituting the first type number quoted above.

longi, dense glandulosi. Calyx circ. 2 mm. longus, glandulosus atque glanduloso-ciliatus. Corolla cupularis vel aperte campanulata, 3-4 cm. longa, alba roseo-suffusa, maculata vel nunc immaculata, lobis 5 inaequalibus 1.5-2 cm. longis, 2-2.5 cm. latis emarginatis. Stamina 10, 2-2.5 cm. longa, filamentis glabris. Gynaeceum 3-3.5 cm. longum, ovario conoideo 6 mm. longo glanduloso atque ad basim paulo tomentoso, stylo ad apicem glanduloso ibique dilatato sub stigmatibus discoideo. Capsula oblongo-cylindrica, obtusa, circ. 2 cm. longa, 8 mm. lata, recta vel paululo curvata, nigrescens, glandulis emarcidis asperata, 8-10 locularis.

"MID WEST YUNNAN. On the hills around Huang tsao Pa, 3 days south of Tengyueh. Lat. $24^{\circ} 20'$ N. Long. $98^{\circ} 33'$ E. Alt. 6,000 ft. On the margins of thickets and forests. Shrub of 6-7 ft. Flowers white, flushed rose-pink on exterior with crimson markings. March, 1925." Coll. Consul H. I. Harding, under G. Forrest No. 26313.

"Yunnan. In fruit only. Oct., 1917." G. Forrest No. 15954.

"Yunnan. Hills south of Tengyueh. Lat. 25° N. Alt. 6-7,000 ft. In open thickets. Shrub of 5-7 ft. In fruit. Aug., 1919." G. Forrest No. 18415.

"Mid West Yunnan. Hills 3 days south Tengyueh. Lat. $24^{\circ} 20'$ N. Long. $98^{\circ} 33'$ E. Alt. 7,000 ft. On the margins of open forests. Shrub of 6-8 ft. Flowers white more or less flushed rose-pink. May, 1925." G. Forrest No. 26416.

"Mid West Yunnan. In fruit only. Aug., 1925." G. Forrest No. 27195.

"Mid West Yunnan. In fruit only. Oct., 1925." G. Forrest No. 27415.

Rh. Hardingii is closely akin to *Rh. laxiflorum* but differs from the latter in its narrow lanceolate leaves; moreover, it comes from an area much further south. The long pedicels give a handsome open truss. The flowers vary in size, in the amount and depth of colour of the spotting and in the amount of rose or pink flushing in the corolla. Forrest's number 15954 which flowered at the Royal Botanic Garden, Edinburgh, in 1930 had flowers almost pure white. Other gatherings by Forrest are more or less flushed rose-pink. From typical *Rh. irroratum* it differs in the cupular corolla, the open truss, the tomentose (as well as glandular) ovary and in the glabrous filaments. In its corolla shape it approaches *Rh. Annae* but differs from that species in its larger flower. *Rh. Annae*, a Kweichow species, is geographically remote from the area in which *Rh. Hardingii* occurs.

Rh. hirtipes, Tagg. Sp. nov.

The Species of Rhododendron (1930), 140; Ward in Gard. Chron., 3rd ser., lxxxvii. (1930), 330.

Inter species in sectionem *Glischrum* seriei *Barbati* positae foliis intentibus apice basique rotundatis haec valde distincta est. Quoad foliorum texturam atque indumentum ad *Rh. habrotrichum*, Balf. f. et Forrest spectat, quoad formam species quasdam seriei *Thomsonii* revocat.

Arbor parva ad 8 m. alta; ramuli annotini glanduloso-setosi; perulae cito deciduae. Folia petiolo 1–2 cm. longo dense glanduloso hirsuto suffulta; lamina subcoriacea, oblongo-ovalis vel late elliptica, 6–12 cm. longa, 4–7 cm. lata, apice bene rotundata brevissime mucronata, basi rotundata, margine setulis mox deciduis asperata, supra nitens glabra nisi ad costam sulcatam glanduloso-setosulam, infra glanduloso-punctata esetulosa nisi ad costae basim, costa ipsa eminente; nervi primarii utrinque circ. 10 inconspicui. Inflorescentia umbellata 3–5-flora; rhachis brevis; pedicelli circ. 1 cm. longi, glanduloso-setosi. Calyx 8–12 mm. longus, in lobos subaequales ovatos vel subrotundatos fere ad imum fissus, basi atque ad margines loborum glandulosus. Corolla campanulata, tenuiter carnea, rosea, carmineo-punctata, 5 cm. longa, lobis 5 emarginatis 2 cm. longis et latis. Stamina 10, inaequalia, 1.5–3 cm. longa, filamentis basi puberulis. Gynaecium 3.5 cm. longum; ovarium conoideum, 5 mm. longum, dense glandulosum; stylus basi glandulosus. Capsula deest.

"S.E. TIBET. Tsela Dzong, Tsangpo valley. Alt. 13,000 ft. Flowers pure rose-pink more or less spotted with carmine. Buds deep rose-pink. A gnarled tree up to 20–25 ft. On steep moss-clad heavily wooded cliffs and shady ravines. May, 1924." K. Ward No. 5659.

The following, which are in foliage only, appear to be this species:—

"S.E. TIBET. Nam La. Alt. 11–12,000 ft. Young plant of No. 5659. July, 1924." K. Ward No. 6187.

"S.E. Tibet. Doshong La. Alt. 10–11,000 ft. Foliage and fruit. Not seen in flower. Like No. 5659 except in habit. A shrub up to 6 or 8 ft. high with ascending stems growing on steep gneiss cliffs which face north. Here it forms a dense low scrub, often hanging its long branches over the cliff. October, 1924." K. Ward No. 6223.

In its bristly shoots and petioles and setose-glandular pedicel and calyx *Rh. hirtipes* has affinity with *Rh. habrotrichum* and *Rh. glischrum*. The broadly oval leaves, sometimes almost orbicular with rounded apices are at once distinctive and recall certain members of the *Thomsonii* series such as *Rh. rhaibocarpum*. Its position would appear to lie between *Rh. habrotrichum* and *Rh. rhaibocarpum*. The vesicular hairs of the leaf underside are very characteristic. They have short pluricellular stalks crowned at the apex with clusters of vesicular cells which in the young dry leaf are filled with a brownish

substance. Ward refers to these hairs as forming on the young fresh leaf a layer of glistening pale green agglutinated hairs. On the older leaves these cells are collapsed and the hairs appear as formless resinous dots on the leaf surface. The resinous substance is soluble in potash, in which medium the cells swell up and resume their bladder-like shape. The numerous long setae characteristic of the leaf underside of *Rh. glischrum* are here replaced by fewer clavate glands on relatively short stalks. The calyx lobes are shorter and broader than those of *Rh. glischrum* and *Rh. habrotrichum*, and the ovary glands are less setose than in these species.

Captain Kingdon Ward has favoured me with the following notes made in the field on No. 5659 :—

"A slim gnarled tree 15–20 ft. high ; or in open situations a small shrub or bush of less than 5 ft. Bark grey. One and two-year-old shoots bristly, the brown bristles being the stalks of glandular hairs which have lost their glandular heads. Outer bud scales linear acute, or narrow obovate acute, covered on the outside with very short glandular hairs, making them very sticky ; varnished inside. Inner bud scales strap shaped, broader towards the apex, acute ; margin pink fringed with glandular hairs. Young leaves revolute, the upper surface with short scattered brown hairs in the region of the midrib, mixed with a few crimson headed glandular hairs on the midrib itself ; under surface with a dense layer of glistening pale green agglutinated hairs with which are mingled minute bright purple spots on the veins—immature glandular hairs. Petiole hairy, densely clothed with colourless crimson headed glandular hairs. Inflorescence a terminal umbel of 3–4 nodding rose-pink flowers. Pedicels 0.75 in. long, densely clad with red-tipped glandular hairs. Calyx large, leafy, irregular, cut almost to the base, the lobes more or less oblong, apex rounded or acute, about 0.5 in. long and 0.25 in. wide, the two upper lobes larger than the others, thin, papery, pinkish. The whole calyx covered on the outside with short glandular hairs, which also fringe the margin ; inside glabrous. Corolla regular, broadly funnel-shaped, 2 in. long, 2.5 in. wide, 5-lobed, the lobes rounded, with crimped or wavy margin, cut to $\frac{3}{4}$ the depth of the corolla ; puberulous inside the throat. Stamens 10, subequal, the longest about 1 in. long ; base of filaments expanded, pubescent. Ovary conical-ovoid, densely clothed with short sticky glandular hairs, and tapering gradually into the long style, which is more or less clad with glandular hairs, reddened below lobulate stigma."

***Rh. lanigerum*, Tagg. Sp. nov.**

The Species of *Rhododendron* (1930), 248.

Species in serie Falconeri corollae lobis quinque, staminibus decem

bene distincta atque aliquatenus aberrans; quoad indumentum haud procul a *Rh. prepto*, Balf. f. et Forrest.

Arbor parva tortuosa ramulis sub inflorescentia crassis 1 cm. latis vel ultra. Folia petiolo 1.5-2 cm. longo supra sulcato dense cinereo-tomentoso suffulta; lamina oblongo-lanceolata vel oblongo-oblanco-lata, 18-22 cm. longa, 5-7 cm. lata, apice acuminato-cuspidata, basi obtusa vel cuneata, supra paululo rugulosa, maturitate glabra nisi ad costam sulcatam vestigiis indumenti juvenilis impletam, venis primariis utrinque 20-25, infra indumento bistrato primum albido deinde cinereo vel fere nigrido induta, costa eminente fere nuda. Inflorescentia congesta racemosa 20-25-flora, rhachi crassa circ. 2.5 cm. longa dense ferrugineo-tomentosa, pedicellis 1-1.5 cm. longis dense tomentosis. Calyx circ. 2 mm. longus, carnosus, dentibus 5 triangularibus. Corolla late campanulata, 4-5 cm. longa, roseo-purpurea, tubo carnoso, nectariis basalibus conspicuis, lobis 5, 1.5 cm. longis 2 cm. latis alte emarginatis. Stamina 10 ex collectore. Gynaeceum circ. 3 cm. longum, ovario conoideo sulcato dense cinereo-tomentoso 6-loculari eglanduloso, stylo glabro. Fructus abest.

"ASSAM HIMALAYA. Delei Valley. Alt. 10-11,000 ft. A small gnarled tree growing out from the steep flanks of the ridge, first noticed where the Abies forest begins above the ferrugineous leafed Grande (No. 8163*). Leaves with a white woolly indumentum, turning grey, and ultimately more or less black as in *Rh. Macabeanum*. Truss large. Corolla rose-purple. Corolla 5-lobed with 5 dark honey glands at the base. Stamens 10. Ovary rather sparsely woolly. Style glabrous. Common, more or less social, on steep Bamboo and Rhododendron clad slopes; the highest of the Grande Rhododendrons, chiefly associated with Abies and tree Rhododendrons of the Thomsonii series, together with smaller scrub species. May, 1928." K. Ward No. 8251.

Rh. Makinoi, Tagg, nom. nov. in Nakai and Koidsumi Trees and Shrubs Indigenous in Japan Proper, vol. 1 (1927), 61; The Species of Rhododendron (1930), 577.

Rh. Metternichii β *pentamerum*, forma *angustifolium*, Makino in Tokyo Bot. Mag. x. (1896), 211-12.

Rh. Hymenanthus, var. *pentamerum* forma *angustifolium*, Makino in Tokyo Bot. Mag. xvi. (1902), 33.

Rh. stenophyllum, Makino (non J. D. Hooker) in Tokyo Bot. Mag. xxiv. (1910), 99.

Professor Nakai when he visited Edinburgh some years ago diagnosed some of our living plants as Makino's *Rh. stenophyllum*. I pointed out to him that the name "*stenophyllum*" had previously

* K. Ward No. 8163 is *Rh. arizelum*.

been used by Hooker for a Bornean Rhododendron.* Professor Nakai suggested the alternative name *Rh. Makinoi* and it is under this name with myself as authority that he describes it in the work by Nakai and Koidsumi referred to above.

It may be worth while to give a few notes on the previous literature dealing with this species. The first reference is by Makino in Tokyo Bot. Mag., vol. x (1896), 211, which is in Japanese. I am indebted to Professor Nakai for a translation. In an account of *Rh. Metternichii* Makino adds:—"Hosoba-Shakunage (narrow-leaved Rhododendron) in the Botanic Garden of Tokyo Imperial University is a form of this β , i.e., β *pentamerum* f. *angustifolia*. This is an accidental narrow-leaved form which came out of the seeds of β *pentamerum*."

In Tokyo Bot. Mag. vol. xvi (1902), 33, he refers to it again under *Rh. Hymenanthes* β *pentamerum* in the following words:—"forma *angustifolia*, Makino. Leaves denser, angustato-lanceolate, acutish-obtuse, attenuated below, ferrugineo-lanate beneath, 4-16 cm. long, 1.3-2 cm. broad. Hab. Prov. Musashi: Tokyo, Bot. Gard. Koishikawa, cult. (Herb: Sc. Coll. Imp. Univ. Tokyo, May 8, 1880; T. Makino, May, 1899). It is said that this form grows on mountains of northern boundaries in provinces of Mikawa and Tōtōmi."

In Tokyo Bot. Mag. vol. xxiv (1910), 99, Makino gives a very adequate description of it in English under the name *Rh. stenophyllum*, the first time it is given specific rank.

In Nakai and Koidsumi, Trees and Shrubs Indigenous in Japan Proper, vol. i (1927), 61, it is described in Japanese and also figured showing characteristic leaves and flowers.

In "The Species of Rhododendron" published by the Rhododendron Society I give a description in English based on plants cultivated in the Edinburgh Botanic Garden.

A brief Latin diagnosis is appended.

Rh. Makinoi, Tagg. Nom. nov.

Affinis *Rh. Degroniano*, Carr. atque *Rh. Metternichii*, Sieb. et Zucc. a quibus foliis angustissimis paulo curvatis subtus densissime tomentosis inter alia differt.

Frutex 1-2.5 m. altus ramulis dense albido-tomentosis. Folia petiolo 1.5-2 cm. longo circ. 4 mm. lato vix sulcato dense albido-tomentoso deinde fulvido praedita: lamina anguste lanceolata, saepe subfalciformis, 7-17 cm. longa, 1-2.5 cm. lata, apice acuta, basi cuneata, margine revoluta, supra laete viridis, glabra nisi ad costam sulcatam, infra densissime lanato-tomentosa, nervis utrinque 12-15. Inflorescentia umbellata circ. 6-flora; rhachis 2-3 mm. longa, dense tomentosa; pedicelli circ. 3 cm. longi, setulis strigosis induti. Calyx

* *Rh. stenophyllum*, Hook. f. ex Beccari, Malesia, i., 203; Burbidge, The Gardens of the Sun, 275 with fig. on p. 274; Stapf in Trans. Linn. Soc. 2nd ser. iv. (1894), 196.

5-7 mm. longus ut pedicelli setulosus. Corolla late infundibulari-campanulata, 4 cm. longa, 3.5-4 cm. lata, pallide rosea, maculis kermesinis saepe notata, intra ad basim puberula; lobi 5, inaequales, ovati vel rotundati, 1.5 cm. longi, 1.5-2 cm. lati. Stamina 10, inaequalia, 1.7-3.3 cm. longa, filamentis albidis basi per 1 cm. puberulis. Gynaeceum circ. 3.5 cm. longum, ovario conoideo obtuso circ. 5 m. longo dense lanato-tomentoso, stylo glabro albido apice curvato.

JAPAN. On mountains of the northern boundary of the Province of Tōtōmi in Central Japan.

Rh. Meddianum, G. Forrest, var. **atrokermesinum**, G. Forrest. Var. nov.

The Species of *Rhododendron* (1930), 742.

Varietas haec conspicua floribus atrokermesinis, ovario valde glanduloso a typo recedit.

"N.E. UPPER BURMA. Western flank of the N'Maikha—Salween divide. Lat. 26° 20' N. Long. 98° 48' E. Alt. 11,000 ft. Amongst *rhododendron* scrub on rocky slopes. Flowers deep purple-crimson with black-crimson markings. Shrub of 6-8 ft. April, 1925." G. Forrest No. 26499.

"N.E. Upper Burma. Duplicate in fruit of No. 26499. November, 1925." G. Forrest No. 27623.

"N.E. Upper Burma. Western slopes of the Chimi-li, N'Maikha—Salween divide. Lat. 26° 24' N. Long. 98° 48' E. Alt. 11,000 ft. Margins of thickets and conifer forests. Flowers deep wine-crimson. Shrub of 10 ft. April, 1925." G. Forrest No. 26495.

"N.E. Upper Burma. Duplicate in fruit of No. 26495. November, 1925." G. Forrest No. 27606.

Rh. peregrinum, Tagg. Sp. nov.

The Species of *Rhododendron* (1930), 312.

Species affinis *Rh. Watsonii*, Rehder et Wilson a quo lamina basi rotundata subcordata minus decurrente, petiolo longiore angustiore, indumento diverso, superficie superiore haud nitente divergit.

Planta e speciminibus cultis nota; altitudo circ. 3 m.; ramuli annotini 1 cm. diametro, primo furfuraceo-floccosi, glabrescentes, tandem virides. Folia petiolo 1.5-2.5 cm. longo dense cinereo tomentoso suffulta; lamina oblongo-elliptica vel late elliptica, 10-18 cm. longa, 5-8 cm. lata, apice obtusa vel breviter acuminata, basi rotundata vel subcordata, supra opaco-viridis haud nitens, costa conspicua straminea ad basim sensim dilatata ibique convexa, infra cinereo-grisea vel pallido-fulva, tomento bistrato induta, strato superiore laxo furfuraceo plus minusve detersili, inferiore tenuissimo pelliculam formante, costa prominente, nervis lateralibus utrinque 17-20 paulo elevatis. Inflorescentia laxo corymboso-umbellata 15-20-flora; rhachis 3.5

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cm. longa, sericeo-pubescentia; pedicelli 3-4 cm. longi pubescentia floccosa albedo-fulvida muniti. Calyx brevissimus dentibus 6-7 minutis albo-araneoso-tomentosis. Corolla late campanulata, 4-5 cm. longa, in alabastro rosea, tandem alba, extra roseo-suffusa, intra varo basali dorsali laete rubro notata, maculis lineisque per longitudinem petali posterioris additis; lobi 6-7 rotundati, circ. 1.5 cm. longi, 1.8 cm. lati. Stamina 14, inaequalia, 2-3.5 cm. longa, basi pilosa, antheris purpureo-brunneis. Gynaecium 3.5-4 cm. longum; ovarium 8 mm. longum, anguste oblongum, atro-viride, glabrum, 7-loculare; stylus stamina longiora paulo superans, albidus, glaber, apice paululo curvatus, stigmatibus discoideo pro serie parvo.

WEST CHINA. Province of Szechuan.

The specimen here described was sent to the Edinburgh Royal Botanic Garden by Mr. Magor of Lamellan, Cornwall, as a rogue among his plants of *Rh. galactinum* (Wilson 4254). It is not *Rh. galactinum* nor does it come within the limits of the Falconeri Series as the Series is defined by the late Sir Isaac Bayley Balfour. It is undoubtedly allied to *Rh. Watsonii* from which it differs, however, in the rounded subcordate leaf base, less decurrent lamina, less broad petiole, the much smaller ultimate vein reticulation, the mat (not glossy) upper leaf surface, and in the loose arachnoid leaf indumentum.

Rh. Watsonii, Heml. et Wils. and *Rh. galactinum*, Balf. f. are both from Szechuan and as Wilson's numbers of *Rh. Watsonii* are 4251 and 4244 a proximity of area is suggested for the plants seen by Wilson in fruit only, and gathered under No. 4254.

As the plant has not been collected in the field and is known only from cultivated plants grown from seed secured by E. H. Wilson I add the following notes made on living material sent to Edinburgh by Mr. Magor:—

A small tree of 10-20 ft. shoots below inflorescence stout, straight, 1 cm. or more in diameter, covered at first with a grey floccose, scurfy tomentum which wears off and leaves the shoot a bright green.

Petiole stout, rounded below, flat or somewhat convex above, 1.5 to 2.5 cm. long, 7 mm. across, covered with a grey floccose tomentum which on the upper side is quickly detersile. Lamina oblong-elliptic or broadly elliptic, up to 18 cm. long and 8 cm. broad: apex obtuse or shortly acuminate, base cuneate, rounded, subcordate often inequaelateral: margin entire, recurved a thin yellowish cartilaginous line, upper surface a light mat green, minutely rugulose, midrib a prominent yellow line widening at the lamina base to the width of the petiole, slightly grooved over greater part of length but becoming convexly raised towards the petiole: under surface covered with a grey, buff-grey or greenish bistrata indumentum, the upper stratum consisting of much branched pluricellular hairs, more or less detersile, the lower stratum a thin white pellicle of agglutinate hairs: midrib prominently raised, pale green or yellowish, almost bare but with

vestiges of a detersile tomentum: primary lateral veins, 18 to 20 on each side.

Inflorescence loosely corymbose, bearing 15 to 20 flowers: rhachis 3.5 cm. long, greenish, pubescent with a covering of long, silky hairs: bracteoles linear about 1 cm. long, white, pubescent. Pedicels 3 to 4 cm. long, stout, clothed more or less densely with a white cobweb pubescence, eglandular.

Calyx a short ring with 6 to 7 triangular lobes, 2 mm. long, clothed outwardly with scattered flecks of white cobweb tomentum and at the margins with hair tufts.

Corolla broadly campanulate, subventricose, a soft pink in bud, when fully expanded white with a rosy tinge, inside white but marked on the dorsal side with a few bright red blotches which break into lines and spots; lobes 6 to 7, rounded, slightly emarginate, about 1.5 cm. long and 1.8 cm. broad.

Stamens 14, the shorter about 2 cm. long, the longer up to 3.5 cm. long, all somewhat densely pilose over the lower 5 mm. of filament length: anthers scarcely 3 mm. long, purple-brown.

Gynaeceum 3.5 to 4 cm. long, slightly exceeding the longer stamens, equalling the corolla tube. Disk glabrous. Ovary about 9 mm. long, narrow-oblong, slightly furrowed, 7-chambered, deep green, glabrous, eglandular. Style 3 cm. long, curved at tip, whitish, glabrous: stigma discoid, small for the series, almost 2 mm. across.

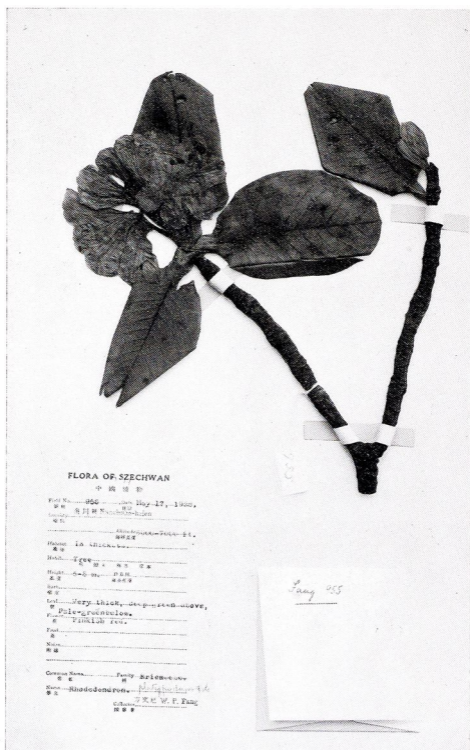
Mr. Magor says "it is more upright in habit and quicker in growth than *Rh. Watsonii* and stouter than *Rh. Watsonii* or *Rh. galactinum*." His comment on its hardness is, "it has been out here for many years in a rather exposed place and suffered not at all."

***Rh. platypodum*, Diels descript., ampl. Tagg. Plate CCXXXI.**

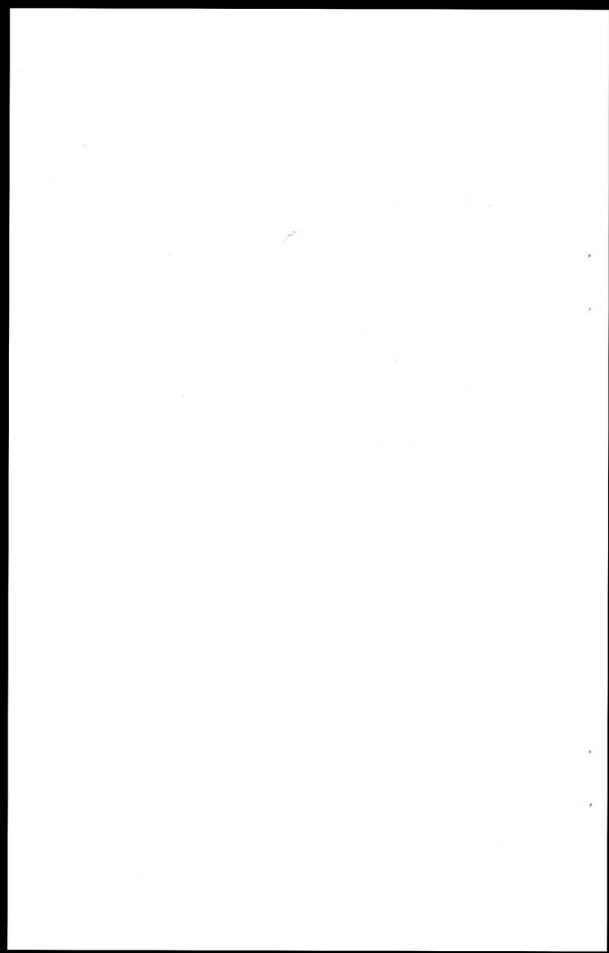
The Species of *Rhododendron* (1930), 839.

Species affinis *Rh. decoro*, Franch. atque *Rh. Fortunei*, Lindl. sed foliis ellipticis latioribus magis coriaceis, petiolo brevissimo et latissimo divergens.

Frutex 2-6.5 m. altus, ramulis sub inflorescentiis circ. 1 cm. diametro. Folia coriacea, late elliptica, 8-11 cm. longa, 5-7 cm. lata, apice rotundata, basi valde obtusa vel rotundata in petiolum late decurrentia, supra maturitate glabra minute rugulosa, costa in sicco paulo elevata, venis primariis utrinque 16-18 approximatis e costa angulo acuto currentibus, infra pallidiora, maturitate glabra vel vestigiis pilorum vel glandularum juvenilium minute punctulata, costa eminente in petiolum dilatata; petiolus 1-2 cm. longus, ad 1 cm. latus, valde complanatus. Inflorescentia laxe racemoso-umbellata circ. 15-flora; rhachis 4-5 cm. longa sparsim glandulosa; pedicelli circ. 2 cm. longi glabri vel sparsim glandulosi. Calyx 2 mm. longus, carnosulus, lobis 7 brevibus undulatis. Corolla infundibulari-



Rhododendron platypodum, Diels.



campanulata, circ. 4 cm. longa, rosea, immaculata, lobis 7, 1.3 cm. longis, 1.8 cm. latis, leviter emarginatis. Stamina 14, valde inaequalia, 1.5–3.5 cm. longa, filamentis gracilibus ad basim per 6 mm. puberulis, antheris 4 mm. longis, 2 mm. latis. Gynaecium 3.5 cm. longum; ovarium ovoideum, paulo sulcatum, glandulis clavatis brevistipitatis dense-obsitum, 8-loculare; stylus validus, ad apicem glandulosus; stigma discoideum, 3–4 mm. latum. Capsula deest.

"CHINA. Setschwan: Nan chu'an." Bock and Rosthorn No. 658.

"China. Szechuan: Nanchuan-hsien. 6–7,000 ft. In thickets. Tree 5–8 m. Flowers pinkish red. May, 1928." W. P. Fang No. 955.

This remarkable and distinctive rhododendron was described by Diels on imperfect material in foliage only, gathered by Bock and Rosthorn (No. 658).

Diels' description published in Engl. Bot. Jahr. xxix (1900), p. 511 runs as follows:—" *Rhododendron platypodum*, n. sp.; arbor; foliis coriaceis omnino glabris subtus pallidis late ellipticis basi in petiolum brevem dilatatum sensim angustatis apice rotundato-obtusis mucronulatis, nervis later-alibus I. 12–15 utrinque adscendentibus approximatis cum venis reticulatis (sicco) utrinque prominulis.

2 m.-hoher Baum mit 7.5 cm. starkem Stamm. Blattstiel (der oberen Blätter) 2 cm. lang, 8–10 mm. breit. Spreite (der obersten Blätter) 10–12 x 5–7 cm.

"shan p'ipa shu."

S. Nan ch'uan: Kên ao p'ing, Hochwald (BvR 658—st. Aug.).

Die Blattform dieses *Rhododendron* ist so eigenartig, dass es ohne Blüte leicht wieder zu erkennen ist."

Among collections made by W. P. Fang in 1928 and recently received at Edinburgh there is a specimen in flower from the same locality as the type specimen collected by Bock and Rosthorn.

By the courtesy of Dr. Handel-Mazzetti of the Natural History Museum, Vienna, I have been able to examine a co-type of *Rh. platypodum* and there is no doubt that the flowering specimen collected by Fang is identical with that originally described by Diels. I am thus able to supplement the original description.

Since Bock and Rosthorn collected it no specimen of *Rh. platypodum* appears to have come to European Herbaria until the gathering by W. P. Fang arrived. Its systematic position within the genus has therefore hitherto remained uncertain. In spite of its leaf shape and very broad petiole the general characters suggest an alliance with members of the subseries Fortunei. In support of this we have the 7-partite corolla, 14 stamens, an 8-chambered ovary and stout style glandular to the tip. Its nearest kinship would thus appear to be with *Rh. decorum*.

Rh. repens, Balf. f. et Forrest, var. **chamaedoron**, Tagg et Forrest.
Var. nov.

The Species of Rhododendron (1930), 514.

Varietas haec est quasi-intermedia inter *Rh. repens*, Balf. f. et Forrest et *Rh. serpens*, Balf. f. et Forrest; quoad foliorum formam priori favet; quoad indumentum ad *Rh. serpens*, Balf. f. et Forrest spectat. Folia obovata vel plus minusve elliptica, apice rotundata, subtus indumento tenuissimo praedita, hic illic glandulosa. Pedicelli et glandulosi et villosi. Stamina ad trientem puberula nec glabra ut in typo.

"S.E. TIBET. Tsarong: Salween—Kiu Chiang divide, West of Chamatong. Lat. 28° 18' N. Long. 98° 27' E. Alt. 14,500 ft. On open stony alpine meadows. Shrub of 1 ft. Flowers deep crimson almost black in bud. June, 1922." G. Forrest No. 21768.

"S.E. Tibet. Tsarong: Salween—Kiu Chiang divide, N.W. of Si-chi-to. Lat. 28° 45' N. Long. 98° 18' E. Alt. 14-15,000 ft. On moist stony peaty moorland and on boulders. Semi-prostrate shrub of 3-9 inches. Flowers dark crimson. June, 1922." G. Forrest No. 21916.

"S.E. Tibet. Tsarong: Duplicate in fruit of No. 21768. October, 1922." G. Forrest No. 22706.

"N.W. YUNNAN. Londre pass, Mekong—Salween divide. Lat. 28° 12' N. Long. 98° 40' E. Alt. 13,000 ft. On rocky meadows. Shrub of 2 ft. Flowers deep crimson-rose. June, 1921." G. Forrest No. 19536.

"N.W. Yunnan. Mountains above Tseku and Tsehchung, Mekong—Salween watershed. 1923." J. F. Rock No. 9233.

"N.W. Yunnan. Mountains above Tseku and Tsehchung, Mekong—Salween watershed. 1923." J. F. Rock No. 11042.

Rh. repens, Balf. f. et Forrest, var. **chamaethauma**, Tagg. Var. nov.

The Species of Rhododendron (1930), 514.

Varietas habitu altiore, foliis majoribus, inflorescentiis plurifloris, floribus roseis, filamentis puberulis, ovario et glanduloso et tomentoso bene notata.

"S.E. TIBET. Doshong La. 12-13,000 ft. Growing amongst boulders on the sheltered side of the hill in very broken ground. A prostrate ascending undershrub of 1 ft. high. Flowers rose or carmine, sometimes quite pale pink, usually with darker spotting on upper half of corolla. June, 1924." F. K. Ward No. 5847.

Rh. repens, Balf. f. et Forrest, var. **chamae-Thomsonii**, Tagg et Forrest.
Var. nov.

The Species of Rhododendron (1930), 514.

Varietas haec a typo foliis majoribus anguste obovatis saepe sub-

ellipticis supra glaucis, calyce majore cupulari carnoso, ovario dense glanduloso pilis perpaucis intermixtis recedit. Speciem nanam Seriei Thomsoni suggerit sed habitu plus minusve prostrato, perulis persistentibus, inter alia signa minora ab illa serie removit.

"S.E. TIBET. Tsarong: Salween—Kiu chiang divide. N.W. of Si-chi-to. Lat. $28^{\circ} 45'$ E. Long. $98^{\circ} 18'$ E. Alt. 14–14,500 ft. Amongst snow on open moist rocky alpine moorland. Shrub of 1–2 ft. Flowers very dark crimson. June, 1922." G. Forrest No. 21723.

"S.E. Tibet. Tsarong: Salween—Kiu chiang divide. West of Chamatong. Lat. $28^{\circ} 18'$ N. Long. $98^{\circ} 27'$ E. Alt. 14–15,000 ft. On boulders and moist stony alpine moorland. Semi-prostrate shrub of 6 inches. Flowers deep crimson, margins darkest. June, 1922." G. Forrest No. 21900.

"S.E. Tibet. Tsarong: Duplicate of No. 21723 in fruit. October, 1922." G. Forrest No. 22674.

"S.E. Tibet. Tsarong: Duplicate of No. 21900 in fruit. October, 1922." G. Forrest No. 22802.

"S.E. Tibet. Mount Kenyichunpo and region of Champutong, Salween—Irrawadi watershed. 1923." J. F. Rock No. 11169.

"N.W. YUNNAN. Mountains above Tseku and Tsehchung, Mekong—Salween watershed. 1923." J. F. Rock No. 8713.

"N.W. Yunnan. Mountains above Tseku and Tsehchung, Mekong—Salween watershed. 1923." J. F. Rock No. 9228.

"N.W. Yunnan. Mountains above Tseku and Tsehchung, Mekong—Salween watershed. 1923." J. F. Rock No. 9230.

"N.W. Yunnan. Mountains above Tseku and Tsehchung, Mekong—Salween watershed. 1923." J. F. Rock No. 11036.

"N.W. Yunnan. Mountains above Tseku and Tsehchung, Mekong—Salween watershed. 1923." J. F. Rock No. 11597.

This striking variety has oboval to obovate leaves much larger than the type, characterised above by a glaucous bloom recalling that of the leaves of some members of the Thomsonii Series. The calyx also is much larger than that of the type and the ovary is more glandular. It does not appear to be so prostrate as typical *Rh. repens*.

Rh. rude, Tagg et Forrest. Sp. nov.

The Species of *Rhododendron* (1930), 141.

Species affinis *Rh. glischro*, Balf. f. et Forrest, sed foliis utrinque setosis atque corolla minore divergens; quoad foliorum formam *Rh. habrotrichum* in memoriam revocat.

Frutex ad 3 m. altus; ramuli annotini longe glanduloso-setosi; perulae subpersistentes. Folia petiolo 1.5–2 cm. longo densissime glanduloso-hirsuto suffulta; lamina in sicco chartacea, late oblanceolata vel subovata, 10–19 cm. longa, 4–7 cm. lata, apice abrupte acuminata,

basi plus minusve rotundata, margine setulis asperata, supra vix rugulosa undique hispida haud nitens, infra undique longe glanduloso-setosa, costa valde eminente; nervi primarii utrinque 16–20 conspicui. Inflorescentia umbellata circ. 10-flora; rhachis 1–1.5 cm. longa, glandulosa atque pubescens; pedicelli circ. 3 cm. longi, dense glanduloso-setosi. Calyx 1.5 cm. longus, in lobos subaequales lanceolatos vel anguste oblongos fere ad imum fissus, undique dense glanduloso-setosus. Corolla late campanulata, carnosula, purpureo-kermesina, lineis atropurpureis pererrata, 2.5 cm. longa, lobis 5 vix emarginatis 1.2 cm. longa, 1 cm. latis. Stamina 10 inaequalia, 1.2–2.5 cm. longa, filamentis basi dilatatis ibique dense villosis. Gynaeceum 2.5 cm. longum; ovarium ovoideum, 4–5 mm. longum, setis glandulosis ascendentibus dense indutum; stylus ad medium setoso-glandulosus atque floccosus. Capsula oblonga 1.5 cm. longa, 5 mm. lata, setis saepe persistentibus, calyce subinclusa.

"N.W. YUNNAN. Salween—Kiu chiang divide. Lat. 27° N. Long. 98° 35' E. Alt. 12,000 ft. Flowers purplish-crimson with a dark line downward from the apex of each lobe and crimson markings. Shrub 8–9 ft. In thickets in side valleys. June, 1924." G. Forrest No. 25645.

"N.W. Yunnan. = No. 25645. Same locality and altitude. October, 1924." G. Forrest No. 25777.

This species is closely akin to *Rh. glischrum* but is more hispid than that species, the upper surface of the leaf being markedly bristly. The leaf is broad for its length and in shape it recalls that of *Rh. habrotrichum*. The flowers are small for the series and are conspicuously lined along the corolla lobes.

Rh. sanguineum, Franch. var. **didymoides**, Tagg et Forrest. Var. nov.

The Species of Rhododendron (1930), 555.

Varietas alpina haec a typo perulis persistentibus, foliis minoribus, floribus minoribus roseis, ovario saepe bene glanduloso divergit atque fere ad *Rh. didymum*, Balf. f. et Forrest transitionem facit.

"E. TIBET. Tsarong: Salween—Kiu chiang divide. Lat. 28° 24' N. Long. 98° 24' E. Alt. 14,000 ft. In rhododendron and cane thickets. A shrub of 2–3 ft. Flowers rose. July, 1921." G. Forrest No. 19982.

Rh. vesiculiferum, Tagg. Sp. nov.

The Species of Rhododendron (1930), 143.

Species affinis *Rh. glischro*, Balf. f. et Forrest et *Rh. glischroides*, Tagg et Forrest sed foliis minus elongatis valde rugosis atque ad costam venasque pilis vesiculosis inusitatis indutis distincta.

Frutex vel arbor parva; ramuli annotini dense glanduloso-setosi;

perulae subsistentes. Folia petiolo circ. 1.5 cm. longo densissime glanduloso-hirsuto suffulta; lamina in sicco chartacea, oblongo-lanceolata, vel oblanceolata, 8–16 cm. longa, 2–5 cm. lata, apice abrupte acuminata, basi rotundata vel cordulata, margine setulis asperata, supra rugosa maturitate glabra nisi ad costam sulcatam glanduloso-setosulam haud nitens, infra undique longe setosa, venis costaque insuper indumento albido e pilis vesiculosiis brevibus composito indutis, costa ipsa eminente; nervi primarii utrinque 20–24 subconspicui. Inflorescentia umbellata 10–15-flora; rhachis circ. 5 mm. longa, floccosa; pedicelli circ. 2.5 cm. longi, setis glandulosis atque pilis vesiculosiis dense induti. Calyx circ. 1 cm. longus, in lobos subaequales oblongos vel subovales fere ad basin fissus, undique dense glanduloso-setosus. Corolla campanulata tenuiter carnosula, purpureo-rosea, basi varo purpureo decorata, 3–3.5 cm. longa, lobis 5 emarginatis 1.3 cm. longis, 1.8 cm. latis. Stamina 10, inaequalia, 1.5–2.5 cm. longa, filamentis basi dilatatis ibique dense puberulis. Gynaecium 3 cm. longum; ovarium ovoideum, 5 mm. longum, setis glandulosis ascendentibus atque pilis vesiculosiis dense obsitum; stylus basi similiter indutus. Capsula deest.

"N. BURMA. Seinghku Wang. Alt. 9,000 ft. Flowers flushed purple rose with a deep crimson flash at the extreme base of the upper half of the corolla. Small gnarled shrub. On precipitous rocky slopes. May, 1926." Ward No. 6752.

"N. BURMA. Seinghku Wang. Lat. 28° 8' N. Long. 97° 25' E. Alt. 10–11,000 ft. Flowers pinkish-purple with a large dark purple splash at the base. A medium sized thin tree. In forest on steep sheltered slopes. June, 1926." K. Ward No. 6856.

Allied to *Rh. glischrum* but coming from further west. It differs in the texture and more rugulose character of the leaf, as well as in the development of peculiar bladderly hairs on the veins of the lower leaf surface. The calyx lobes are broader than those of *Rh. glischrum* moreover the ovary and style are clad with floccose vesicular hairs as well as glands.

Rh. velleureum, Hutch. MS. in Herb. Kew. descript. Tagg. Sp. nov.

The Species of *Rhododendron* (1930), 688.

Species affinis *Rh. agannipho*, Balf. f. et Ward a quo foliorum forma, indumento magis spongioso, fructu longiore curvato inter alia differt; socius alter est *Rh. Balfourianum*, Diels quod calyce maximo gaudet.

Arbor 2–5 m. alta, ramulis sub inflorescentia circ. 5 mm. diametro primum tenuiter floccosis cito glabris. Folia petiolo 1.5–2 cm. longo supra sulcato atque floccoso-tomentoso infra glabrescente munita; lamina coriacea, oblongo-elliptica vel oblongo-lanceolata, 6–11 cm. longa, 2–4.5 cm. lata, apice subacuta vel obtusa, basi rotundata vel

nunc cordulata, supra levis vel minute rugulosa, maturitate glabra, costa sulcata, venis primariis utrinque 14-16, infra argenteo-albida vel pallido-cinerea, indumento crasso spongioso pelliculam mollem formante induta, costa eminente plus minusve indumento celata, venis omnino obscuris. Inflorescentia umbellato-racemosa 15-20-flora, rhachi circ. 1 cm. longa, pedicellis 1.5-2 cm. longis glabris vel sparsim floccosis. Calyx circ. 1 mm. longus, lobis anulum undulatum formantibus breviter floccoso-ciliatis. Corolla infundibulari-campanulata 3.5 cm. longa, alba vel roseo-suffusa, purpureo-maculata, lobis 5, circ. 1 cm. longis, 1.8 mm. latis emarginatis. Stamina 10, inaequalia, 1.5-2.5 cm. longa, filamentis basi pilosulis. Gynaeceum 2.5 cm. longum, ovario oblongo-conoideo 7 mm. longo glabro, stylo glabro. Capsula anguste cylindrica sulcata glabra curvata 5-6-locularis.

"S.E. TIBET. Above Nang Dzang Tsangpo Valley. Alt. 14-15,000 ft. A stocky little tree with a round bushy top reaching a height of 15-20 ft. or a stout bush branched from the ground up, or a shrub. Grows socially on sheltered slopes with birch, larch, etc., or as a bush covers whole hillsides. Flower buds deep rose, flowers paler rose with a few carmine spots on the upper lobe of the corolla, or almost white. 1924." K. Ward No. 5640.

Rh. vestitum, Tagg et Forrest. Sp. nov.

The Species of *Rhododendron* (1930), 724.

Species affinis *Rh. rhaibocarpo*, Balf. f. et W. W. Sm. a quo foliis indumento distincto subtus velatis, corolla basi latiore, fructu minore multo minus curvato inter alia differt.

Frutex vix 2 m. attingens; ramuli primo setoso-glandulosi, deinde glabrescentes. Folia petiolo 5-7 mm. longo supra sulcato setoso-glanduloso munita; lamina ovalis vel elliptica, nunc obovata, 3.5-5 cm. longa, 1.5-3 cm. lata, apice late obtusa vel rotundata, apiculata, basi obtusa vel rotundata, supra minute rugulosa maturitate glabra, costa paulo impressa, venis primariis utrinque 9-12, infra indumento laxo deterrenti fulvo vel furfuraceo e pilis ramosis composito induta, venis venulisque plus minusve celatis. Inflorescentia umbellata circ. 6-flora; rhachis tantum 3-5 mm. longa floccosa atque glandulosa; pedicelli 1.5 cm. longi glandulis setosis atque glandulis brevistipitatis vestiti. Calyx 1-2 mm. longus, glandulosus, lobis carnis rotundatis vel triangularibus glanduloso-ciliatis. Corolla infundibuliformi-campanulata, alba roseo-suffusa, sparsim kermesino-maculata, varo basali notata, 3-3.5 cm. longa; lobi 5, 1 cm. longi, 1-3 cm. lati. Stamina 10, inaequalia, 1.5-3 cm. longa, filamentis basi puberulis. Gynaeceum 3-3.5 cm. longum, ovario conico 4 mm. longo sulcato glandulis longistipitatis dense vestito, stylo glabro vel basi pauci-glanduloso. Capsula cylindrica, paululo curvata, 1-1.5 cm. longa, 4 mm. lata, glandularum vestigiis asperata.

"S.E. TIBET. Tsarong: Salween—Kiu chiang divide, N.W. of

Si-chi-to. Lat. $28^{\circ} 30' N$. Long. $98^{\circ} 15' E$. Flowers white flushed rose, deep rose in bud with a few crimson markings and a blotch. Shrub of 4-5 ft. In cane brakes in side valleys. June, 1922." G. Forrest No. 21877.

"S.E. Tibet. Tsarong: Duplicate in fruit of No. 21877. October, 1922." G. Forrest No. 22895.

While this is undoubtedly of the alliance of *Rh. rhaibocarpum* and *Rh. dasycladum* it shows so distinct an indumentum that it is quite an exceptional member of the Thomsonii Series in that respect. Its evident kinship, however, with the species named warrants its inclusion in the alliance suggested in spite of this very aberrant character.

A New Rhododendron of the Glaucum Series.

BY

HARRY F. TAGG, F.L.S.

Rhododendron micromeres, Tagg, sp. nov.

Species sectionis Glauci, ex affinitate *Rh. Genestieriani*, Forrest a quo floris colore viridi-flavo inter alia differt.

Planta 1-2 m. alta fere epiphytica atque subpendula. Folia petiolo circ. 5-8 mm. longo dense lepidoto suffulta; lamina oblonga vel elliptica, 3-7 cm. longa, 1.5-3 cm. lata, apice obtusa, mucronulata, basi obtusa vel cuneata, supra laete virens, squamis flavidis distantibus lepidota, infra glauco-cinerea, squamis inter se spatium diametro paulo majus distantibus conspersa, venis utrinque circ. 10 obscuris. Inflorescentia umbellata 3-7-flora, rhachi 5-7 mm. longa lepidota atque plus minusve albo-villosula, pedicellis gracilibus 2-3 cm. longis lepidotis in fructu valde elongatis. Calyx 2-4 mm. longus, undulato-lobatus. Corolla rotato-campanulata, viridi-flava, extra lepidota, circ. 1.4 cm. longa, tubo 4 mm. longo, lobis late rotundatis circ. 1 cm. longis, 5-7 mm. latis late patentibus. Stamina 10, subaequalia, 5-8 mm. longa, filamentis longioribus fere glabris, brevioribus dense villosis. Gynaecium 6-8 mm. longum, ovario 2.5-4 mm. longo dense lepidoto, stylo tantum 5 mm. longo valde curvato. Capsula circ. 1.5 cm. longa, 4-5 mm. lata, pedicellis ad 5.5 cm. elongatis, calyce persistente cincta.

"S.E. TIBET, Tsarong. Salween—Kiu Chiang divide, west of Si-K'ai. Lat. $27^{\circ} 48' N$. Long. $98^{\circ} 33' E$. Alt. 9-10,000 ft. On trees [Notes, R.B.G., Edin., No. LXXIX, October 1931.]